DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 70.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-007312
Date Inspected: 16-Jun-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Japan Steel Works

OSM Arrival Time: 730
OSM Departure Time: 1630
Location: Muroran, Japan

CWI Name: Chung Fu Kuan

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower, Jacking, and Deviation Saddles

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 and the Foundry shop at Japan Steel Works.

Fabrication Shop #4

NDT Verification of Saddle: Tower Saddle Segment T1-3 (cast section welded to steel section)

The QA Inspector performed the ultrasonic test (UT) verification inspection on complete-joint penetration groove weld joint no. 9Y-5U-1 after the intermediate post weld stress relief heat treatment operation on the rib (cast section) to rib (steel section) of tower saddle segment T1-3. The UT inspection was in accordance with AWS D1. 5-2002 section 6.13 and to the UT acceptance-rejection criteria- compressive stress in Table 6.4. The UT verification inspection performed appeared to be in general compliance with the contract specifications. See Ultrasonic Test Inspection Report TL-6027 dated June 16th, 2009 for details of equipment used and locations of inspection on tower saddle segment T1-3.

Foundry:

Storage of Saddle: West Deviation Saddle Segment W2-W3 (cast section)

The QA Inspector observed that west deviation saddle segment W2-W3 (cast section) is located in the Foundry Shop for storage until west deviation saddle segment W2-W3 (steel section) is ready for the fit-up operation. On this date, the QA Inspector observed that no work was performed on west deviation saddle segment W2-W3 (cast section).

Defect Removal pending on Cast Saddle: East Saddle E2-E1 (cast saddle)

The QA Inspector observed the JSW personnel performing the grinding operation inside of the excavated areas on the cast saddle to remove rejectable indications located on the exterior of the trough section, stem section, and rib section at various locations along its length on east saddle E2-E1. The rejectable indications were located in the the excavated areas previously marked up by Nikko Inspection Services (NIS) QC NDT Personnel Mr. K. Nishida (#311) from the liquid penetrant test (PT) and magnetic particle test (MPT) inspection to ensure the complete removal of the rejectable indication prior to the start of the repair weld operation. The QA Inspector observed that the grinding operation inside of the excavated areas were in process at the end of the QA Inspectors' shift.

Weld Operation performed on Cast Saddle: East Saddle E2-W1 (cast saddle)

The QA Inspector observed the repair weld operation on excavated areas on exterior of the trough (ID side) on east saddle E2-W1. The QA Inspector observed Quality Control (QC) Inspector Mr. T. Imai verify prior to and during the weld operation that the minimum preheat temperature of 150 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. Y. Kabutomai (06-8000) were in compliance with WPS SJ-3026-4 per the SMAW process in the horizontal position using (5.0) mm diameter E9016-G electrode. The QA Inspector observed that the repair weld operation was in process at the end of the QA Inspectors' shift.

Shaping Operation pending on Saddle: West Jacking Saddle (cast saddle)

The QA Inspector observed the JSW personnel performing the shaping (scarfing) operation- (removal of excess cast material on the rough casting) by the air-carbon arc gouge method using (19) mm carbon electrode on the (ID side) of the trough, stem and rib sections of the west jacking saddle to profile the trough, stem, and rib sections of the west jacking saddle to the proper shape, dimension and radius. The QA Inspector observed the JSW personnel were in process on the shaping operation at the end of the QA Inspectors' shift.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the applicable contract documents

Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Guest,Kittric	QA Reviewer